Computer   **Practical Sheet**   1st Prep stage

Q1: Write steps to make a sprit walk to the edge with different sprit's costumes then bounce in the same direction.. when the green flag is clicked.

Steps:

- From **Event Blocks**
  - drag (when green flag is clicked)
- From **Motion Blocks**
  - drag (set rotation style left to right)
- From **Control Blocks**
  - drag (Repeat forever block)
  - From **Motion blocks**.. drag (Move 10 steps)
  - From **Look blocks**.. drag (next costume)
  - From **Control blocks**.. drag (Wait 0.1 second)
  - From **Motion blocks**.. drag.. (If on edge, bounce)

Q2: Write steps to make a sprite go to different four directions when four arrows are clicked.

Steps:

1. From **Event blocks** drag (When the **up arrow** key is pressed)
   - From **Motion Block**:
     - drag (Point in direction **up 0**)
     - drag (Move 100 steps)
2. From **Event blocks** drag (When the **down arrow** key is pressed)
   - From **Motion Block**:
     - drag (Point in direction **down 180**)
     - drag (Move 100 steps)
3. From **Event blocks** drag (When the **left arrow** key is pressed)
   - From **Motion Block**:
     - drag (Point in direction **left -90**)
     - drag (Move 100 steps)
4. From **Event blocks** drag (When the **right arrow** key is pressed)
   - From **Motion Block**:
     - drag (Point in direction **right 90**)
     - drag (Move 100 steps)

**Q3:** Write steps to draw a red line with size 10.
Steps:

1. From **Event blocks** drag (When the space key is pressed)
2. From **Pen blocks** drag (Clear)
   - Then drag (pen down)
   - Then drag (set pen color to ▫)
   - Then drag (set pen size to 10)
3. From **Motion blocks** drag (move 200 steps)

```
when space key pressed
clear
pen down
set pen color to █
set pen size to 10
move 200 steps
```
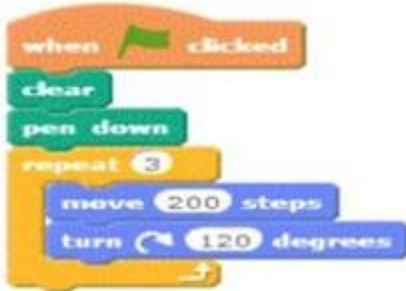
Q4: Write steps to draw a circle.
Steps:

1- From **Event blocks** drag (when green flag clicked)
2- From **Pen blocks** drag (clear)
   - Then drag (pen down)
3- From **Control blocks** drag (repeat 72)
4- From **Motion blocks** drag (move 10 steps)
   - Then drag (turn 5 degrees)

```
when [flag] clicked
clear
pen down
repeat 72
    move 10 steps
    turn 5 degrees
```
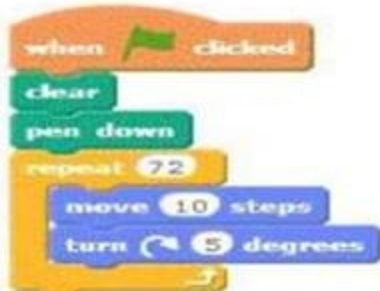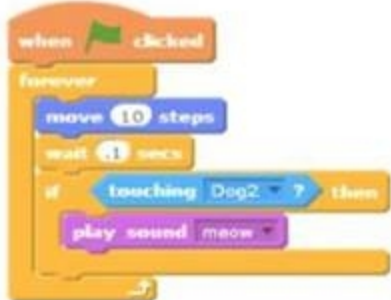
Q5: Write steps to draw a triangle.
Steps:

- From **Event blocks** drag (when green flag clicked)
- From **Pen blocks** drag (clear)
   - Then drag (pen down)
3. From **Control blocks** drag (repeat 3)
4. From **Motion blocks** drag (move 200 steps)
   - Then drag (turn 120 degrees)

```
when [flag] clicked
clear
pen down
repeat 3
    move 200 steps
    turn 120 degrees
```

Q6: Write steps to play a sound when a cat touches a dog.
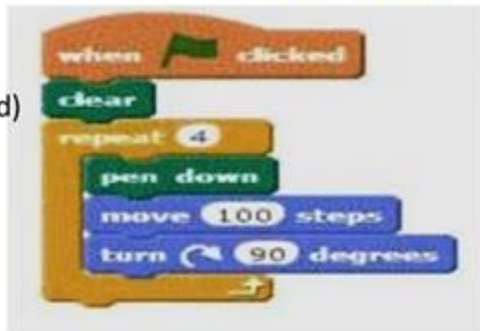**Steps:**

- Add a new sprite from library (dog2)
- From **Event blocks** drag (when green flag clicked)
- From **Control blocks** drag (forever)
- From **Motion blocks** drag (move 10 steps)
- From **Control blocks** drag (wait 0.1 secs)
   - Then drag (If then block)
   - From **Sense blocks** drag (touching dog2)
   - From **sound blocks** drag (play sound meow)

```
when [flag] clicked
forever
    move 10 steps
    wait 1 secs
    if touching Dog2 ? then
        play sound meow
```

**Q7:** Write steps to draw a square.
**Steps:**

- From **Event blocks** drag (when green flag clicked)
- From **Pen blocks** drag (clear)
    - Then drag (pen down)
- From **Control blocks** drag (repeat 4)
- From **Motion blocks** drag (move 100 steps)
    - Then drag (turn 90 degrees)



**Q8:** Write steps to draw a hexagonal.
**Steps:**

- From **Event blocks** drag (when green flag clicked)
- From **Pen blocks** drag (clear)
    - Then drag (pen down)
- From **Control blocks** drag (repeat 6)
- From **Motion blocks** drag (move 100 steps)
    - Then drag (turn 60 degrees)
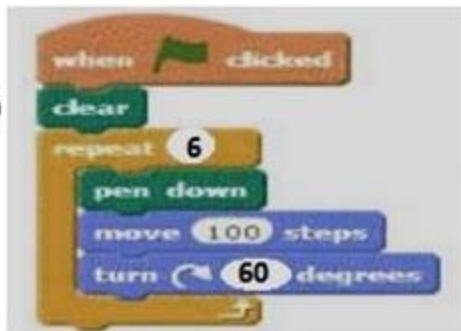


**Note:**

$$\text{Angle of rotation} = \frac{360° \text{ degrees}}{\text{number of ribs}}$$

زاوية الدوران = ٣٦٠ درجه
عدد الأضلاع

*With my best wishes for success*          (3)          *Mrs. Nehal Mohamed*